

**Notice of Allowability**

Application No.

10/528,912

Examiner

Tony G. Soohoo

Applicant(s)

MUELLER, FRIEDRICH

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 03/23/2005 & telephone communication of 10/10/07.
2. ☒ The allowed claim(s) is/are 1-3 and 8-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 3/23/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with W. F. Fasse on October 10, 2007.

2. The application has been amended as follows:

a. Amended in TITLE OF THE INVENTION: replace the title with the following:

-- Plasticating screw for an extruder or extrusion press, having a narrower land width in the transition region. --

b. Amended in the ABSTRACT: replace the abstract with the following:

-- A plasticating screw for an extruder or an extrusion press has a thread change, whereby the volume of the transporting cross-section does not change and thus a pressure increase in the region of the thread is avoided. To this end, in the region wherein a first and a second screw thread of the plasticating screw overlap, the thread width outside the overlapping region is equal to d and the thread width inside the overlapping region is equal to  $\frac{1}{2} d$ . --

c. Amended in the SPECIFICATION;

- On page 1, lines 5-9, replace the paragraph with the following heading and paragraph;

-- FIELD OF THE INVENTION --.

The invention relates to a plasticating screw for an extruder or an extrusion press having a high polymer melt through-put. --

- On page 1, before 10, insert the following heading;

-- BACKGROUND OF THE INVENTION --.

- On page 2, before line 7 insert the following heading;

-- SUMMARY OF THE INVENTION --.

- On page 2, line 24, after "zone." , insert the following sentence;

-- The screw shaft diameter may vary conically in the region of overlap of the screw flights. --

- On page 3, lines 1-2, delete lines 1-2 and replace with the following:

-- extruder nozzle, provision is furthermore made for the radius of the screw shaft to diminish over 360 degrees about an axis of the screw shaft in a region between two

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flight changes while an outer surface of the screw shaft remains parallel to the axis in this region.

- On page 3, line before line 3, insert the following heading;

-- BRIEF DESCRIPTION OF THE DRAWINGS --

- On page 3, before line 17, insert the following heading:

-- DETAILED DESCRIPTION OF AN EXAMPLE EMBODIMENT OF THE INVENTION--

- On page 3, replace line 25 with the following:

-- enlargement of the screw shaft diameter, e.g. conically, reduces the channel depth T of the screw --

- On page 4, line 3, replace line 3 with the following:

-- depth is increased around the screw shaft, for example, while the surface of the screw shaft remains axially parallel, and hence pressure relief is achieved --

d. Amended in the CLAIMS:

- In claim 1, line 3, delete "is" and replace with --comprises a screw shaft--.
- In claim 1 line 8, delete "helically running flight, and" and replace with  
-- flight running helically along the screw shaft, and--.
- In claim 1, lines 10-11, delete "helically running".

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- In claim 1, line 11 before “overlaps” insert  
-- running helically along the screw shaft--.
- In claim 3, line 1 delete “A screw with changing flight” and replace with  
-- A plasticating screw --.
- In claim 10, line 2 delete “is modified” and replace with  
--diameter varies --.
- In claim 11, delete lines 2-4 and replace with the following:  
--characterized in that the radius of the screw shaft between at least  
two further overlapping flights diminishes over 360  
degrees about an axis of the screw shaft while an outer surface of the screw  
shaft between the further overlapping flights remains parallel to the axis of the  
screw shaft, so as to increase the channel depth between the further  
overlapping flights over the 360 degrees--.

3. The following is an examiner's statement of reasons for allowance: The claims distinguish over the prior art whereby the claims require that the cross section of the two flights in the overlapping region is of a reduced cross section so that they corresponds to the first flight cross section. A search of the prior art has found overlapping region flights, however does not show or render obvious the related structural features of the cross sections of the first flight with that of the two flights in the overlapping region.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***


4. The amendment was made in order to address formal matters to the specification so as to place the application in better condition for allowance, and also to clarify the language of the literal translation.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 8AM-5PM, Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Tony G Soohoo  
Primary Examiner  
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